Notice of Allowability	Application No.	Applicant(s)	
	09/783,126	PARK ET AL.	
	Examiner	Art Unit	
	Esaw T. Abraham	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the Appeal brief filed on 03/12/06*.

2. ☒ The allowed claim(s) is/are *1-39*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

Examiner's statement for reason for allowance

1. Claims **1-39** have been allowed.

The following is an examiner's statement for allowance:

As per claim 1:

The prior art, Sen et al. (U.S. PN: 6,515,972) of record teach a wireless communication networks and particularly to service levels within the communication networks (see col. 1, lines 15-20) Sen et al. teach a classification application utilizing a table (catalog information) of connection numbers and associated Ids is utilized of service level decoding (deciphering) a connection number field of the compressed IP packet header and packets carrying different connection numbers mapped to different quality of service planes (see col. 3, lines 24-31). Sen et al. teach that when a non-active TCP connection becomes active, the classification detects and identifies the connection by reading the connection number field of the compressed TCP/IP header in the packet of application (see col. 3, lines 30-33) and further Sen et al. teach a method steps for detecting an active data packet connection, including a data pack, decoding a connection number field in a compressed header of said data packet to determine a connection number for said data packet and furthermore providing a table comprising a first set of data and second set of data, said first set of data containing a plurality of identified connection numbers, and said second set of data containing a corresponding quality of service plane for each identified connection number in the table (see claim 1) which Sen is basically employing a process for detecting packets the same as the

applicant's invention. However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious a method for transmitting and receiving wireless data comprising the steps of: establishing a catalog of information related to an application data service; adding header information by referring to the established catalog, and error detecting codes to application data related to the application data service; and deciphering a header when data errors are detected by the error detecting codes added to the application data, and transmitting the application data to an upper ranking layer according to a quality of service if the deciphered value of the header belongs to the determined catalog. Consequently, claim 1 is allowed over the prior art.

Claims **2-3, 6-8, 10-12, 15-17, 20-22, 25-27, 29-31, 33-38,** which is/are directly or indirectly dependent/s of claim 1 are also allowable over the prior art of record.

As per claim 4:

The prior art, Sen et al. (U.S. PN: 6,515,972) of record teach a wireless communication networks and particularly to service levels within the communication networks (see col. 1, lines 15-20) Sen et al. teach a classification application utilizing a table (catalog information) of connection numbers and associated Ids is utilized of service level decoding (deciphering) a connection number field of the compressed IP packet header and packets carrying different connection numbers mapped to different quality of service planes (see col. 3, lines 24-31). Sen et al. teach that when a non-active TCP connection becomes active, the classification detects and identifies the connection by reading the connection number field of the compressed TCP/IP header in the packet of application (see col. 3, lines 30-33) and further Sen et al. teach a method

steps for detecting an active data packet connection, including a data pack, decoding a connection number field in a compressed header of said data packet to determine a connection number for said data packet and furthermore providing a table comprising a first set of data and second set of data, said first set of data containing a plurality of identified connection numbers, and said second set of data containing a corresponding quality of service plane for each identified connection number in the table which Sen is basically employing a process for detecting packets the same as the applicant's invention. However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious a method for transmitting wireless data comprising the steps of: establishing a catalog of information related to an application data service; establishing a payload, including the application data related to application data service, and adding header information related to the application data by referring to the established catalog; and adding error detecting codes to the payload, and performing channel-coding. Consequently, claim 4 is allowed over the prior art.

Claims **9, 13, 18 and 23,** which is/are directly or indirectly dependent/s of claim 4 are also allowable over the prior art of record.

As per claim 5:

The prior art, Sen et al. (U.S. PN: 6,515,972) of record teach a wireless communication networks and particularly to service levels within the communication networks (see col. 1, lines 15-20) Sen et al. teach a classification application utilizing a table (catalog information) of connection numbers and associated Ids is utilized of service level decoding (deciphering) a connection number field of the compressed IP

packet header and packets carrying different connection numbers mapped to different quality of service planes (see col. 3, lines 24-31). Sen et al. teach that when a non-active TCP connection becomes active, the classification detects and identifies the connection by reading the connection number field of the compressed TCP/IP header in the packet of application (see col. 3, lines 30-33) and further Sen et al. teach a method steps for detecting an active data packet connection, including a data pack, decoding a connection number field in a compressed header of said data packet to determine a connection number for said data packet and furthermore providing a table comprising a first set of data and second set of data, said first set of data containing a plurality of identified connection numbers, and said second set of data containing a corresponding quality of service plane for each identified connection number in the table which Sen is basically employing a process for detecting packets the same as the applicant's invention. However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious a method for receiving wireless data in a wireless data system including a catalog of information related to an application data service, comprising the steps of: determining data errors in each layer using error detecting codes added to received data after channel-decoding the received data; deciphering header information in each layer when data errors are detected; transmitting data to an upper ranking layer according to the quality of service if the header information deciphered in each layer belongs to the catalog; and decoding the transmitted data. Consequently, claim 5 is allowed over the prior art.

Claims **14, 19, 24, 28 and 32,** which is/are directly or indirectly dependent/s of claim 5 are also allowable over the prior art of record.

As per claim 39:

The prior art, Sen et al. (U.S. PN: 6,515,972) of record teach a wireless communication networks and particularly to service levels within the communication networks (see col. 1, lines 15-20) Sen et al. teach a classification application utilizing a table (catalog information) of connection numbers and associated Ids is utilized of service level decoding (deciphering) a connection number field of the compressed IP packet header and packets carrying different connection numbers mapped to different quality of service planes (see col. 3, lines 24-31). Sen et al. teach that when a non-active TCP connection becomes active, the classification detects and identifies the connection by reading the connection number field of the compressed TCP/IP header in the packet of application (see col. 3, lines 30-33) and further Sen et al. teach a method steps for detecting an active data packet connection, including a data pack, decoding a connection number field in a compressed header of said data packet to determine a connection number for said data packet and furthermore providing a table comprising a first set of data and second set of data, said first set of data containing a plurality of identified connection numbers, and said second set of data containing a corresponding quality of service plane for each identified connection number in the table which Sen is basically employing a process for detecting packets the same as the applicant's invention. However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious an apparatus for transmitting and/or receiving wireless data

comprising: transmitting means for establishing a catalog of information related to an application data service, adding header information of each protocol layer by referring to a catalog, adding error detecting codes to the application data, and transmitting the application data, including the header information and the error detecting codes; and receiving means for deciphering a header if data errors are detected by the error detecting codes of the application data received from the transmitting means, and decoding the data according to a quality of service if the deciphered value belongs to the established catalog. Consequently, claim 39 is allowed over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone numbers for the organization where this application or proceeding is assigned (571) 273-8300.

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Esaw Abraham

Art unit: 2133

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SUPERVISORY PATENT EXAMINER
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Inventors' Names: Jeong-hoon Park, et al.
Title: APPARATUS FOR TRANSMITTING AND RECEIVING WIRELESS DATA AND METHOD THEREOF
Appln. No.: 09/783,126 Filed: 02/15/2001
Sughrue Ref. No.: Q62554
Replacement Sheet for Figure 4

2A
Ok to enter
04/18/06

FIG. 4